Appl. No.: 10/030,066

Amendment Dated: April 14, 2004

Reply to Office Action of April 1, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of the Claims:

1-17 (Canceled)

18. (Currently Amended) A process for preparing modified metal oxides or metal

aquoxides that are dispersible in organic solvents comprising:

(I) reacting at a temperature of above 0°C and not exceeding 90°C.

(A) at least <u>one</u> metal oxide or metal aquoxide having a crystallite size of 4 to

100 nm, determined by x-ray diffraction on the 021 reflex, and a particle size

of 5 to 500 nm, determined by photon correlation spectroscopy in

dispersion:

with

(B) <u>a modifier consisting essentially of</u> at least one organic sulfonic acid wherein

(i) in case the reaction takes place in a mainly aqueous medium or in the

absence of a diluent/solvent, the organic sulfonic acid is a mono-, di-,

or trialkylbenzene sulfonic acid, wherein the alkyl residue(s) are C₁ to

C₆ alkyl residue(s) and wherein the component (A), calculated as

metal oxide, and (B) are used at weight ratios from 98:2 to 70:30, or

(ii) in case the reaction takes place in the presence of an organic aprotic

solvent or an organic protic solvent, the organic sulfonic acid

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comprises at least 14 carbon atoms and at least one aromatic ring,

and wherein the components (A), calculated as metal oxide, and (B)

are used at weight ratios from 98:2 to 70:30, and

(II) drying the modified metal oxide or metal aquaoxide to produce a

substantially non-water dispersible dried modified metal oxide or

metal aquoxide; and-

(III) dispersing the dried modified metal oxide or metal aquoxide in an

organic solvent.

19. (Previously Presented) The process according to claim 18, characterized

in that said metal oxide or metal aquoxide contains aluminum.

20. (Previously Presented) The process according to claim 19 wherein said

metal oxide or metal aquoxide are selected from the group consisting of

aluminas, alumina hydrates, aluminum silicate, Si/Al mixed oxides and

mixtures thereof.

21. (Previously Presented) The process according to claim 20 wherein said

alumina hydrates are selected from the group consisting of boehmite,

pseudoboehmite and mixtures thereof.

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22. (Previously Presented) The process according to any one of claims 18-21,

characterized in that the organic sulfonic acid is a toluenesulfonic acid.

23. (Previously Presented) The process according to claim 22 wherein said

toluenesulfonic acid is p-toluenesulfonic acid.

24. (Previously Presented) The process according to any one of claims 18-21,

characterized in that the organic sulfonic acid has the formula R-SO₃H,

wherein R is an alkyl-substituted aromatic hydrocarbon residue with 16 to 24

carbon atoms.

25. (Cancelled)

26. (Cancelled)

27. (Previously Presented) The process according to any one of claims 18-21,

characterized in that the metal oxides or metal aquoxides are brought into

contact with the organic sulfonic acid for a period of time of from 30 seconds

to 7 days.

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28. (Previously Presented) The process according to claim 27 wherein the

period of time is from 30 to 90 minutes.

(Previously Presented) The process of claim 27 conducted with stirring. 29.

30. (Previously Presented) The process according to any one of claims 18-21,

characterized in that the modified metal oxides or metal aquoxides are dried

by spray drying, freeze drying, microwave drying, drying in supercritical

solvents, filtration, contact drying, or rotary drum drying.

31. (Previously Presented) The process according to any one of claims 18-21,

characterized in that the modified metal oxides or metal aquoxides are

dispersed in organic solvent as dispersions having a solids content of 10 to

35 wt%.

32. (Previously Presented) The process according to claim 31 wherein the

solids content is from 20 to 30 weight percent.

33. (Previously Presented) The process according to any one of claims 18-21,

characterized in that the metal oxides or metal aquoxides are taken up in an

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organic solvent and this solvent is exchanged for a second solvent.

34. (Currently Amended) A The metal oxide or metal aquoxide dispersion comprising a metal oxide or metal aquoxide according to any one of claims 18-21, and a dispersant selected from the group consisting of

an aprotic polar organic solvent,

a protic, polar organic solvent having at least two carbon atoms,

an apolar organic solvent and mixtures thereof.

35. (Currently Amended) A The dispersion according to claim 34 wherein the dispersion contains an additive comprising at least one organic

polymeric/oligomeric viscosity-adjusting agent.

36. (Currently Amended) A The dispersion according to claim 35 wherein the viscosity-adjusting agent is selected from the group consisting of cellulose, a cellulose derivative, a polyacrylate, a polyvinyl alcohol and mixtures

thereof.

37. (Currently Amended) A The dispersion according to claim 36, characterized

in that the dispersant is selected from the group consisting of a solvent-

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based paint, lacquer, a water-insoluble plastic, and mixtures thereof.

38. (Previously Presented) A process according to any one of claims 18-21,

characterized in that the modified metal oxides or metal aquoxides are

processed into molded articles by extrusion, pelleting, or spherical drop

forming processes.

39. (New) The modified metal oxide or metal aquoxide prepared according to

any of claims 18-21, dispersed in a hydrophobic material selected from the

group consisting of polyvinyl chloride, laquer/paint based on organic solvents

and mixtures thereof.

40. (New) A transparent coating comprising a modified metal oxide or metal

aquoxide prepared according to any one of claims 18-21 and a transparent

coating agent.

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Respectfully submitted,

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CERTIFICATE OF MAILING

I certify that this document and fee is being deposited with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 or April 14, 2004.

Cathy Hayes